

Exclusions from the CSD-1-1998 Code:

- A.** Boilers with fuel input ratings of 12,500,000 BTU/hr (3 663 389 W) or above falling within the scope of NFPA 8502, 8503 and NFPA 8504.
- B.** Water heaters (fired storage water heaters).
- C.** All items excluded from the Missouri Boiler and Pressure Vessel Statute.

What is covered by this code?

All boilers including high-pressure boilers, low-pressure boilers, hot heating boilers, hot water supply boilers, miniature boilers, modular boilers and pool heaters.

The following is meant to give a brief summation of the requirements of CSD-1-1998 but not as a complete listing: (For detailed requirements, please refer to CSD-1-1998.)

- A. Observation Ports** – To permit direct visual inspection of the pilot, main burner flame, and boiler furnace.
- B. Guards** to protect personnel and protect

against damage to control equipment.

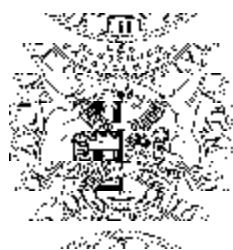
- C. Combustion air requirements** for all applicable ASME codes along with NFPA 54 and NFPA 31 as applicable.
- D. Disconnect Means** – a disconnect means capable of being locked in the open position shall be installed in an accessible location at the boiler so that the boiler can be disconnected from all sources of power. This disconnect means must be an integral part of the boiler or adjacent to it.
- E. Remote Shutdown Switch** (or circuit breaker) – Must be manually operated and shall be located just outside the boiler room and marked for easy identification. (If the boiler room door is on the building exterior, the switch should be located just inside the door.) Although remote shutdown switches are recommended at all doors to the boiler room, they are not required.
- F. Drip Leg** (trap) – A minimum of three (3) inch long drip leg at the inlet of the gas connection to the boiler. (Upstream side of the gas control valves.)

- G. Atmospheric vents and gas vent**, bleed or relief lines cannot be downsized and must be piped by the installer to the outdoors at a safe point of discharge. A means shall be provided at the termination point to prevent blockage of the line from all foreign materials to include moisture, rain, snow insects, etc. Vent, bleed and relief lines may discharge into a common manifold only with other gas vent, bleed or relief lines. When manifolded, the common vent line must have a cross-sectional area not less than all vent lines included. Gas pressure regulators shall not be vented into the boiler flue or exhaust system. Additionally, a gas bleed line from a diaphragm control valve and vent line from a gas pressure regulator may not be vented to a constant burning pilot even though allowed in CSD-1-1998.
- H. Automatic Low-Water Cutoffs** – The requirements for automatic low-water fuel cutoffs or combined water feeding devices vary for each type of boiler. Consult CSD-1-1998 for details for the appropriate installation.

The State of Missouri Adopted ASME CSD-1-1998 on January 1, 2004. (The American Society of Mechanical Engineers - Controls and Safety Devices for Automatically Fired Boilers - 1998 Revision.) There are currently no plans to adopt any later revisions of this code.

CSD-1-1998 is mandatory for any new or used boiler installations occurring on or after January 1, 2004. Although it is recommended that existing installations be brought up to CSD-1-1998 requirements, these installations are grandfathered until that part of the control systems are altered or modified. At that time, that part of the boiler control systems must be brought up to CSD-1-1998 requirements. **Note:** The replacing of a single component with the same or like part due to the malfunction of that part is to be considered a routine repair and does not require the component to be brought up to CSD-1-1998 requirements.

This brochure is only provided as a brief clarification of the jurisdictional requirements of CSD-1-1998 and may be changed as required without notification and in no way does this brochure alleviate any requirements of CSD-1-1998 or meant to supercede CSD-1-1998 or any other ASME code requirements. Any questions concerning this brochure or the CSD-1-1998 requirements not covered in this brochure should be addressed to the Chief Boiler and Pressure Vessel Inspector of the State of Missouri for interpretation.



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**BOILER AND
PRESSURE VESSEL
INSPECTION UNIT**

CSD -1 SUMMARY